

## JERRY F. MOORE

Materials Science Division  
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## EXPERIENCE

ARGONNE NATIONAL LABORATORY, *Assistant Chemist*, 4/2000-present.

Studying ultrathin barrier oxides using surface and thin film analysis methods.

Developing an experiment for molecular surface analysis by VUV photoionization.

ARGONNE NATIONAL LABORATORY, *Postdoctoral Appointee*, 4/1998-3/2000.

Studied binary and ternary corrosion-resistant alloy materials using state-of-the-art surface and bulk analysis methods.

Developed instrumentation related to ion beam materials analysis.

CARTHAGE COLLEGE, *Lecturer*, 2/1998-5/1998.

MESA STATE COLLEGE, *Lecturer*, 8/1997-12/1997.

ARGONNE NATIONAL LABORATORY, *Postdoctoral Appointee*, 10/1995-7/1997.

Designed, built and commissioned a unique soft x-ray spectroscopy instrument (currently beamline 4-ID-C at the Advanced Photon Source).

Studied x-ray degradation of common grazing-incidence optical materials.

## EDUCATION

*Ph.D. Chemistry, December 1995.*

STATE UNIVERSITY OF NEW YORK, STONY BROOK

Dissertation: "Soft X-ray Photochemistry of Condensed Mixed Reactants"

*B.S. Chemistry, December 1990.*

UNIVERSITY OF CENTRAL FLORIDA

## MEMBERSHIPS

American Chemical Society, 1990-

American Vacuum Society, 1994-

Materials Research Society, 1995-

## RECENT PUBLICATIONS

"Ultrathin Oxides: XPS and NEXAFS Study of Corrosion Resistance" **J.F. Moore**, M.P. McCann, M.J. Pellin and J.N. Hryn, in preparation.

"Molten Aluminum Alloy Oxidation Studied by In-situ X-ray Diffraction" **J.F. Moore**, G.B. Stephenson, M.J. Pellin, G. Krumdick, J.N. Hryn, J. Zeh, S. Lhymn, M.P. McCann, in preparation.

"Ultrathin Oxides : Real-time XPS Study of Corrosion Resistance" **J.F. Moore**, M.P. McCann, M.J. Pellin,

and J.N. Hryn, in preparation.

“Antiferrodistortive Reconstruction of the  $\text{PbTiO}_3(001)$  Surface” A. Munkholm, S.K. Streiffer, M.V. Ramana Murty, J. A. Eastman, C. Thompson, O. Auciello, L. Thompson, **J.F. Moore**, G.B. Stephenson, submitted to Physical Review Letters.

“Linux and the Chemist” M.P. McCann and **J.F. Moore**, J. Chem. Ed. (in press).

“Resonant auger studies of metallic systems.” I. Coulthard, W. J. Antel, Jr., S. P. Frigo, J. W. Freeland, **J. Moore**, W. S. Calaway, M. J. Pellin, M. Mendelsohn, T. K. Sham and S. J. Naftel, Journal of Vacuum Science & Technology A 18 (2000), pp. 1955-1958.

“An inert metal anode for magnesium electrowinning.” **J.F. Moore**, J.N. Hryn, M.J. Pellin, W.F. Calaway, and K. Watson, Magnesium Technology 2000, The Minerals, Metals, & Materials Society, Warrendale, Penn., (2000) pp. 21-6.

## RECENT TALKS

14th International Forum on Applied Electrochemistry, November 2000, “A nonconsumable anode for Mg and Al electrowinning”.

Loyola University Chemistry Department Seminar, April 20, 2000, “The Chemistry of Self-Healing Materials”

American Vacuum Society National Symposium, October 1999, “Surface Analysis and Depth Profiles of Self-Healing Copper Aluminum Alloys”

## INVENTIONS (CO-AUTHOR)

“Method for Reduction of Oxidative Melt Loss of Aluminum” (ANL-IN-00-025)

“Electrolytic Cell for Magnesium Electrowinning” (ANL-IN-00-024)

“Oxygen Delivery to Metal Anodes in Mg Production” (ANL-IN-99-069)

“Improved Surface Film for Metal Anodes in Mg Production” (ANL-IN-99-071)